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10/564,713	07/19/2006	Suhung-Gwon Kim	2443.0030000	9873

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WASHINGTON, DC 20005

EXAMINER

RAJ, RAJIV J

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3686

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01/05/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,713	Applicant(s) KIM, SUHUNG-GWON	
	Examiner RAJIV J. RAJ	Art Unit 3686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-21 & 24-29 is/are pending in the application.
- 4a) Of the above claim(s) is/are withdrawn from consideration.
- 5) ☐ Claim(s) is/are allowed.
- 6) ☒ Claim(s) 13-21 & 24-29 is/are rejected.
- 7) ☐ Claim(s) is/are objected to.
- 8) ☐ Claim(s) are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. .
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. <u> </u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u> </u> . | 6) <input type="checkbox"/> Other: <u> </u> . |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 30, 2009 has been entered.

Status of Claims

2. This action is in reply to the amendment filed on 11 November 2009.
3. Claims 1-12 & 23-24 have been canceled.
4. Claims 13 & 28 have been amended.
5. Claims 13-21 & 24-29 are currently pending and have been examined.

Priority

6. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 13-21 & 24-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross, Jr. et al.(US 5823948) (hereinafter Ross) in view of Pories et al. (US 2002/0082868 A1) (hereinafter Pories) in further view of "A Hierarchical Data Management Facility For Clinical Record Applications" (hereinafter NPL).

Claim 13

Ross as shown, discloses the following limitations:

- *using an input device to select or check one of the standard patient-language cardinal symptoms to enter the selected patient-language cardinal symptom in the chief complaint field so as to generate a new medical record that identifies the selected patient-language cardinal symptom as a chief complaint; (see at least Ross Column:2 Lines:49-67 Column:3 Lines:1-33 Claim:2)*
- *wherein the standard patient-language cardinals symptoms are accessed from a database; (see at least Ross Claim:2,4,6)*
 - *the standard patient-language . . . are mapped to standard codes; (see at least Ross Column:12 Lines:35-47)*

Ross does not disclose the following limitation, however Pories, as shown does:

- *displaying, using a processing device, standard patient-language cardinal symptoms on an interface of a display device as one of a selection item and a check item of a chief complaint field of a medical record; (see at least Pories Fig:3 Items:40,41 Fig:7 Items:100-190 & related text)*
- *wherein the standard patient-language cardinal symptoms are selected extracted patient-language terms used in existing medical records of patients regarding cardinal symptoms of the patients; (see at least Pories [0074-0078], Fig:13 Items:66b & related text)*
- *stores the standard patient-language cardinal symptoms so as to be free from association with any particular medical record; (see at least Pories Fig:1A Items:10-20 & related text)*

- *cardinal symptoms; (see at least Pories [0106])*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross. One of ordinary skill in the art would have added these features to Ross with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

Ross/Pories does not disclose the following limitation, however NPL, as shown does:

- *imparting a concept identifier of a standard code to each of the standard patient-language cardinal symptoms; (NPL)*
- *classifying each of the mapped patient-language cardinal symptoms according to whether a concept of the patient-language cardinal symptom exactly matches or substantially matches the imparted concept identifier of the standard code; (NPL)*

It would have been obvious to one of ordinary skill in the art to add the features of NPL into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide a more efficient and effective invention for formatting, manipulating & managing patient and/or medical terminology. (see at least NPL)

Claim 14

The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Ross further discloses the following limitations:

- *the database also stores selected terms regarding diagnosis names, operation names, terms used upon writing of the status of patients by nurses, terms used upon writing of the status of the patients by doctors, prescription terms used by doctors, and medicine terms; (see at least Ross Column:2 Lines:49-66 Claim:2 Fig:2 Items:101-111 & related text)*

Claim 15

The combination of Ross/Pories/NPL disclose all of the limitations of claim 14. Ross further discloses the following limitations:

- *using the input device to perform a standard statement sentence write function that combines the selected terms used upon writing of the status of patients by nurses into a standard statement sentence used to write a medical record; (see at least Ross Column:2 Lines:49-66 Column:9 Lines:20-41 Column:13 Lines:48-58 Fig:2 Items:101-111 Fig:3 Items:107-113 & related text)*

Claim 16

The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Ross further discloses the following limitations:

- *as selection items applicable to writing of a sentence in the medical record; (see at least Ross Column:5 Lines:52-56 Column:9 Lines:20-41)*

Ross/Pories/NPL does not disclose the following limitation, however Pories, as shown does:

- *displaying further comprises displaying the standard patient-language cardinal symptoms; (see at least Pories Fig:3 Items:40,41 Fig:7 Items:100-190 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories/NPL. One of ordinary skill in the art would have added these features to Ross/Pories/NPL with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

Claim 17

The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Ross further discloses the following limitations:

- *using the input device to modify, delete, or add to the standard patient-language . . . in the database; (see at least Ross Fig:3 Items:101-113 & related text)*

Ross/Pories/NPL does not disclose the following limitation, however Pories, as shown does:

- *cardinal symptoms; (see at least Pories [106])*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories/NPL. One of ordinary skill in the art would have added these features to Ross/Pories/NPL with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

Claim 18

The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Pories further discloses the following limitations:

- *communicating over a network with a doctor terminal, a nurse terminal, an examination room staff terminal, and a general medical affairs terminal to perform the displaying; (see at least Pories Fig:1A-B Items:10-20 Fig:3 Items:40,41 Fig:7 Items:100-190 Fig:9-18 Items:24, 25d, 60a-80 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories/NPL. One of ordinary skill in the art would have added these features to Ross/Pories/NPL with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

Claim 19

The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Pories further discloses the following limitations:

- *the selected extracted patient-language terms are from discharge summaries; (see at least Pories [0074-0078])*

Ross/Pories does not disclose the following limitation, however Pories, as shown does:

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories/NPL. One of ordinary skill in the art would have added these features to Ross/Pories/NPL with the motivation to provide an improved invention

accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

Claim 20

The combination of Ross/Pories/NPL disclose all of the limitations of claim 13. Pories further discloses the following limitations:

- *the selected extracted patient-language terms are separated into main concepts, concept qualifiers, and concept modifiers; (see at least Pories Fig:1A-B Items:14-25e & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories/NPL. One of ordinary skill in the art would have added these features to Ross/Pories/NPL with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

Claim 21

The combination of Ross/Pories/NPL disclose all of the limitations of claim 20. Ross further discloses the following limitations:

- *the main concepts are aligned on a spelling and concept basis; (see at least Ross Fig:3 Items:105-114 & related text)*

Claim 24

Ross as shown, discloses the following limitations:

- *separating the extracted terms into main concepts, concept qualifiers, and concept modifiers, wherein the main concepts are aligned on a spelling and concept basis; (see at least Ross Fig:3 Items:105-114 & related text)*
- *selecting, using the processing device, a plurality of terms as standard terms; (see at least Ross Column:2 Lines:49-66)*
- *mapping the standard terms; (see at least Ross Column:12 Lines:35-47)*

Ross does not disclose the following limitation, however Pories, as shown does:

- *extracting, using a processing device, terms used in existing medical records of patients regarding cardinal symptoms of the patients; (see at least Pories [0074-0078, 0106] Fig:1A Items:10-27 & related text)*
- *from the extracted terms that were separated as being the main concepts; (see at least Pories Fig:1A-B Items:14-25e & related text)*
- *to standard codes, (see at least Pories Fig:1A-B Items:14-25e & related text)*
- *storing, using the processing device, the standard terms in a database, wherein the standard terms are stored in the database so as to be free from association with a particular medical record; (see at least Pories Fig:1A Items:10-27 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross. One of ordinary skill in the art would have added these features to

Ross with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

Ross/Pories does not disclose the following limitation, however NPL, as shown does:

- *imparting a concept identifier of a standard code to each of the standard terms;*
(NPL)
- *classifying each of the mapped standard terms according to whether a concept of the standard term exactly matches or substantially matches the imparted concept identifier of the standard code;* (NPL)

It would have been obvious to one of ordinary skill in the art to add the features of NPL into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide a more efficient and effective invention for formatting, manipulating & managing patient and/or medical terminology. (see at least NPL)

Claim 25

The combination of Ross/Pories disclose all of the limitations of claim 24. Ross further discloses the following limitations:

- *selecting, by the service-providing system, a plurality of second terms regarding diagnosis names, operation names, terms used upon writing of the status of patients by nurses, terms used upon writing of the status of the patients by doctors, prescription terms used by doctors, and medicine terms;* (see at least

Ross Column:2 Lines:49-66 Column:9 Lines:20-57 Fig:22 Items:101-111 & related text)

Ross/Pories does not disclose the following limitation, however Pories, as shown does:

- *storing, by the service-providing system, the selected plurality of second terms in a database, wherein the selected plurality of second terms are stored in the database so as to be free from association with a particular medical record; (see at least Pories Fig:1A Items:10-27 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

Claim 26

The combination of Ross/Pories disclose all of the limitations of claim 24. Ross further discloses the following limitations:

- *modifying the standard terms, deleting the standard terms, or adding to the standard terms, or adding to the standard terms in the database; (see at least Ross Fig:3 Items:101-113 & related text)*

Claim 27

The combination of Ross/Pories disclose all of the limitations of claim 24. Pories further discloses the following limitations:

- *using discharge summaries as the medical records; (see at least Pories [0074-0078])*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

Claim 28

Ross as shown, discloses the following limitations:

- *selecting or checking one of the standard patient-language cardinal symptoms to enter the selected patient-language cardinal symptom in the chief complaint field so as to generate a new medical record that identifies the selected patient-language cardinal symptom as a chief complaint; (see at least Ross Column:2 Lines:49-67 Column:3 Lines:1-33 Claim:2)*
- *wherein the standard patient-language cardinals symptoms are accessed from a database; (see at least Ross Claim:2,4,6)*
- *the standard patient-language . . . are mapped to standard codes; (see at least Ross Column:12 Lines:35-47)*

Ross does not disclose the following limitation, however Pories, as shown does:

- *displaying standard patient-language cardinal symptoms on an interface of a display device as one of a selection item and a check item of a chief complaint*

field of a medical record; (see at least Pories Fig:3 Items:40,41 Fig:7 Items:100-190 & related text)

- *wherein the standard patient-language cardinal symptoms are selected extracted patient-language terms used in existing medical records of patients regarding cardinal symptoms of the patients; (see at least Pories [0074-0078], Fig:13 Items:66b & related text)*
- *stores the standard patient-language cardinal symptoms so as to be free from association with any particular medical record; (see at least Pories Fig:1A Items:10-20 & related text)*
- *cardinal symptoms; (see at least Pories [0106])*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross. One of ordinary skill in the art would have added these features to Ross with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

Ross/Pories does not disclose the following limitation, however NPL, as shown does:

- *imparting a concept identifier of a standard code to each of the standard patient-language cardinal symptoms; (NPL)*
- *classifying each of the mapped patient-language cardinal symptoms according to whether a concept of the patient-language cardinal symptom exactly matches or*

substantially matches the imparted concept identifier of the standard code;

(NPL)

It would have been obvious to one of ordinary skill in the art to add the features of NPL into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide a more efficient and effective invention for formatting, manipulating & managing patient and/or medical terminology. (see at least NPL)

Claim 29

Ross as shown, discloses the following limitations:

- *separating the extracted terms into main concepts, concept qualifiers, and concept modifiers, wherein the main concepts are aligned on a spelling and concept basis; (see at least Ross Fig:3 Items:105-114 & related text)*
- *selecting a plurality of terms as standard terms; (see at least Ross Column:2 Lines:49-66)*
- *mapping the standard terms; (see at least Ross Column:12 Lines:35-47)*

Ross does not disclose the following limitation, however Pories, as shown does:

- *extracting terms used in existing medical records of patients regarding cardinal symptoms of the patients; (see at least Pories [0074-0078, 0106] Fig:1A Items:10-27 & related text)*
- *from the extracted terms that were separated as being the main concepts; (see at least Pories Fig:1A-B Items:14-25e & related text)*

- *to standard codes, (see at least Pories Fig:1A-B Items:14-25e & related text)*
- *storing the standard terms in a database, wherein the standard terms are stored in the database so as to be free from association with a particular medical record; (see at least Pories Fig:1A Items:10-27 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross. One of ordinary skill in the art would have added these features to Ross with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

Ross/Pories does not disclose the following limitation, however NPL, as shown does:

- *imparting a concept identifier of a standard code to each of the standard terms; (NPL)*
- *classifying each of the mapped standard terms according to whether a concept of the standard term exactly matches or substantially matches the imparted concept identifier of the standard code; (NPL)*

It would have been obvious to one of ordinary skill in the art to add the features of NPL into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide a more efficient and effective invention for formatting, manipulating & managing patient and/or medical terminology. (see at least NPL)

Response to Arguments

10. Applicant's arguments received on 11 November 2009 have been fully considered but they are not persuasive. Applicants' arguments will be addressed herein below in the order in which they appear in the response filed 11 November 2009.
11. In response to applicant's argument regarding claims 13 & 28, Examiner points out that these claims have been substantially amended and thus are appropriately addressed in the current Office Action.
12. Further, the Examiner would like to thank the Applicant for their cooperation and acknowledges that the Applicant did indeed make changes recommended in the most recent Applicant Initiated Interview. However, the Examiner points out that all amendments are subject to a subsequent search for art.
13. In response to applicant's argument that the cited prior art fails to teach or disclose claims 24 & 29, the Examiner takes the position that presently cited does indeed cited the limitations of claims 24 & 29, after a search subsequent to the applicant's more recent filing.
14. The applicants argue that the previously applied references do not teach or suggest the newly added claim limitations in Claim 13, 24, 28 & 29 on concept identifiers. To respond to this argument, the Office would like to point out that this argument is now moot in view of the newly added non-patent reference which teaches these claimed features.

15. The cited prior art is nonanalogous art it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Rajiv J. Raj** whose telephone number is **(571) 270-3930**. The Examiner can normally be reached on Monday-Friday, 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **Jerry O'Connor** can be reached at **571.272.6787**.

Official replies to this Office action may now be submitted electronically by registered users of the EFS-Web system. Information on EFS-Web tools is available on the

Internet at: <http://www.uspto.gov/ebc/portal/tools.htm>. An EFS-Web Quick-Start Guide is available at: <http://www.uspto.gov/ebc/portal/efs/quick-start.pdf>.

Alternatively, official replies to this Office action may still be submitted by any **one** of fax, mail, or hand delivery. **Faxed replies should be directed to the central fax at (571) 273-8300.** Mailed replies should be addressed to "Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450." Hand delivered replies should be delivered to the "Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314."

Date: 12/11/09
/RJR/
Patent Examiner Art Unit 3686

/Gerald J. O'Connor/
Supervisory Patent Examiner
Group Art Unit 3686